

CRAIG/KLAWOCK HERRING SPAWN-ON-KELP POUND FISHERY
2002 MANAGEMENT PLAN



By

Ketchikan Commercial Fisheries Management Staff

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INTRODUCTION

This plan provides an overview of the management approach and regulations for the 2002 spawn-on-kelp pound fishery on the west coast of Prince of Wales Island near the communities of Craig and Klawock in Southeast Alaska. Staff biologists listed at the end of this document are available to answer questions regarding this plan. Pound operators are also advised to review the section of this plan that describes requirements of other agencies.

A closed pound fishery involves releasing sexually mature herring into a net impoundment in which kelp is suspended. The herring are released from the pound after they spawn on the kelp, and the kelp with eggs are then sold. An open pound has suspended kelp attached to the floating structure, but does not impound herring. The floating structure and kelp are placed in areas of active herring spawn.

In the Section 3-B fishery, a closed or an open pound may be operated by a single Commercial Fisheries Entry Commission (CFEC) permit holder, or a pound may be operated by two or more CFEC permit holders. To reduce the amount of gear on the fishing grounds and handling of herring, the department has provided an incentive to multiple permit pound operators by giving them a larger allocation of *macrocystis* blades or fronds.

STOCK STATUS AND GUIDELINE HARVEST LEVEL

Winter food and bait herring fisheries have occurred in District 3 (Meares Passage and in the Bocas de Finas area) since the 1960s. Seasonal landings from the 1960s through 1985 were small, averaging approximately 210 tons. From 1987–1991 the herring population grew dramatically in Section 3-B with annual guideline harvest levels (GHL) averaging approximately 2,220 tons (Table 1). The herring population has declined in abundance since 1992 with an average GHL of 740 tons. This will be the eleventh year that the Craig/Klawock herring spawn-on-kelp fishery has occurred. Fishing effort, harvest, spawning and fishery dates, and product values are summarized in Table 2.

The estimated size of the Craig/Klawock herring population is based upon an age structured analysis (ASA) model. This model incorporates information on spawning biomass and escapement in prior years, annual mortality, growth, fecundity, and recruitment.

Annual harvest levels are based on a graduated scale that allows for higher harvest rates as the herring population increases relative to the threshold level (Figure 1). The established threshold level for the Craig/Klawock stock is 5,000 tons. No harvest is allowed if the biomass estimate for the stock is less than the threshold level. The harvest rate is allowed to increase from 10% at the threshold level to a maximum of 20%. The spawning biomass forecast for the 2002 season is 8,387 tons. This allows for a GHL of 952 tons for the Craig/Klawock herring spawning stock.

The Board of Fisheries in January of 1997 increased the allocation of herring to the Craig/Klawock spawn-on-kelp pound fishery from an 85/15 allocation between the winter bait fishery and the spring pound fishery

to an allocation of 60/40. Therefore, for the 2002 season, **the GHL for the Craig/Klawock Pound Fishery will be approximately 381 tons of herring, plus the unharvested bait GHL.** For the 2001/2002 winter food and bait fishery the Guideline Harvest Level was 571 tons. As of late February approximately 100 tons of herring have been harvested in the winter food and bait fishery. If there is no further harvest of herring then approximately 852 tons of herring will be used to determine the kelp allocation for the Section 3-B spawn-on-kelp fishery. The winter food and bait herring fishery closes by regulation on February 28, 2001.

Herring spawning normally occurs in the Craig/Klawock area in mid to late March or early April. The earliest observed spawn since the mid-1970s was March 9 and the latest date of initial spawning has occurred as late as April 3. Traditionally, herring spawn on Fish Egg, Wadleigh, Clam, and Abbess islands. However, spawning has also been recorded in the area of Portillo Channel, Port Real Marina, the northern shore of San Fernando Island, the Blanquial Island area, and along the Prince of Wales Island shore at San Christoval Channel and Shinaku Inlet.

CALENDAR OF EVENTS

The following is a calendar of events for the 2002 fishing season:

- March 1 - The department will issue a news release announcing the actual harvest of the winter food and bait herring fishery and kelp allocation.
- March 15 - Kelp permits will be available.
- March 17 - The pound area will be open to the seining of herring effective 12:00 noon.
- May 31 - Pounds must be completely removed from the waters of the herring pound fishing area. This includes the area covered by extreme high tides.

REGULATIONS

The Alaska Board of Fisheries met in Sitka in January 2000 and modified the existing regulations for the Section 3-B herring spawn-on-kelp fishery and approved a regulation which created a management plan for the Section 3-B fishery. The management plan can be found in the 2000-2003 Commercial Herring Fishing Regulation book under **5 AAC 27.185 MANAGEMENT PLAN FOR HERRING SPAWN ON KELP IN POUNDS IN SOUTHEASTERN ALASKA AREA.**

Changes that occurred during the 2000 Board of Fisheries meeting:

- 1) A commissioner's permit to operate a pound is no longer necessary. In the 2000–2003 Commercial Herring Fishing Regulation book **5 AAC 27.130. LAWFUL GEAR FOR SOUTHEASTERN ALASKA AREA. (c)** states that a commissioner's permit is required. This is an oversight in the writing of the regulation book. The intent of the department and the Board of Fisheries was to eliminate the need for a commissioner's permit for this fishery.
- 2) The conditions that were incorporated in past commissioner's permit are now largely regulation.
- 3) A standard table for kelp allocation is now part of the management plan found in 5 AAC 27.185.
- 4) Open pound operators may use either fronds or blades. A frond is defined as the kelp stipe and naturally attached blades. There is no limitation on the number of blades on a kelp frond, as long as they are naturally attached to the stipe. Harvesting requirements for *Macrocystis* kelp are found in **5 AAC 37.100. PERMITS** and **5 AAC 37.300. HARVESTING REQUIREMENTS FOR MACROCYSTIS.**

LIMITED ENTRY

In 1998 the Commercial Fisheries Entry Commission placed all Southeast Alaska's herring spawn-on-kelp pound fisheries under limited entry. For the Craig/Klawock fishery 229 permits were issued. Questions regarding eligibility for this fishery should be directed at the Alaska Commercial Fisheries Entry Commission.

KELP HARVEST AND ALLOCATION

According to **5 AAC 37.100. PERMITS**, a permit is required to harvest kelp to be used in the pounds. Kelp permits may be pooled and one or more individuals can harvest for a group of pound operators. Kelp permits may be obtained from the department's office in Ketchikan or in Craig and must be completed and returned to the department within 30 days after the harvest.

The department will manage the fishery based on a division of kelp blades or fronds between permit holders. The department recognizes that kelp management alone has not been effective in limiting the harvest of herring and staying within the herring GHL set for the fishery. The department has attempted to rectify this problem by allowing the use of multiple-permit pounds thereby reducing the numbers of pounds

on the grounds. This should lead to the reduction in the harvesting, impounding, and the associated mortality of herring. The department's method of encouraging multiple permit pounds and open pounds has been a kelp incentive that is allowing a greater number of kelp blades per permit holder for multiple permit pounds and open pounds.

The amount of kelp for the various types of pounds is now defined in the new management plan. Permit holders can now determine their kelp allocation by looking at the kelp allocation table in the management plan. When the permit holder knows what type of pound and the final GHL for the fishery they can determine the amount of kelp blades or fronds they can use in the fishery. The final GHL level for the fishery will be known on March 1, 2002.

FISHERY CONDUCT AND MANAGEMENT

Suitable sites for pounds in the Craig/Klawock area are limited. To avoid herring mortality and damage to the pounds, operators should locate their pounds in an area with minimal exposure to wind and wave action, and with a relatively deep bottom. The distance from where the herring are captured and the pound site should also be considered since long towing distances can cause considerable stress and mortality of herring.

In past years a completed closed pound had to be on the grounds by mid-March in order for the permit holder to participate in the fishery. For the 2002 season there will not be a deadline when pounds have to be placed on the grounds. Pounds must be operational by the time herring and kelp are introduced.

All permit holders involved in the operation of a pound, whether single or multiple permit pound, must be physically present at their pound fishing site at all times during the *operation of the pound*. *Operation of the pound* is defined as 1) the placement of kelp into the pound structure, 2) the capture and transfer of herring into the pound, and 3) the collection and sale of herring spawn-on-kelp product produced in the pound.

For multiple permit closed pounds all permit holders assigned to the pound must be present at their pound site when kelp and herring are introduced into the pound. If only one permit holder is present at this time then that pound must be operated for the remainder of the season as a single permit closed pound and no more than the number of blades of kelp allocated to a single closed pound may be harvested.

The department will be closely monitoring herring activity in the Craig/Klawock area by vessel and aerial surveys. Kelp permits will be available starting Thursday, March 15, 2002. **Herring for placement in closed pounds may be captured starting at 12:00 noon on March 17 in Section 3-B.** Daily fishing periods will be announced on the fishing grounds. The department will give sufficient notice of the open fishing time so that all fishers are given a fair opportunity to capture herring. Limiting seining to daylight hours may be necessary to control the amount of herring available for harvest and reduce the amount of improper handling of herring that may occur during nighttime seine operations. The department recommends that the size of the sets should be small with no more than 10 tons of herring harvested at one time.

Pound operators are advised to use extreme caution when towing herring from the capture site to the pound site since towing can be a source of significant mortality if not conducted properly. To avoid mortality, the transport of herring to the pound site must be done with the pound itself or a towable net pen. Towable net pens used only for transporting herring must be marked "Tow Pound." **Transporting herring with a purse seine will not be allowed.** Pound operators are also advised to **push** pounds or to tow alongside of the transfer pound to avoid crushing herring against the net in the prop wash.

Pound operators may change the type of pound they are using up to the time herring or kelp is introduced into the pound. They must inform the department of the change.

All fishery announcements, including updates of herring activities and fishery openings, will be broadcast by VHF radio, Channel 10. Fishers are strongly encouraged to have a VHF radio.

HARVEST AND PRODUCTION

Each permit holder's spawn on kelp blades or fronds must remain separate from other permit holder's spawn on kelp blades or fronds until after processing. Permit holders will be allowed to harvest **all** of their herring spawn on kelp product produced in their pounds. A permit holder's fish ticket must report only their spawn on kelp harvested from their pound.

REQUIREMENTS FOR BUYERS

New regulations will be in effect for buyers and processors of spawn on kelp product from the Section 3-B fishery in 2001. These requirements can be found in **5 AAC 27.187. BUYER AND PROCESSORS REPORTING REQUIREMENTS FOR SPAWN ON KELP IN POUNDS FOR THE SOUTHEASTERN ALASKA AREA.**

Buyers, processors, and permit holders should read and become familiar with these reporting requirements.

Operators of floating processing vessels will be required to report in person or by telephone, to the Alaska Department of Fish and Game office in Ketchikan before the start of processing operations in the Craig/Klawock fishery. These reporting requirements are specified by regulation **5 AAC 39.130 (f).**

LICENSE REQUIREMENTS

Operators must obtain a 2001 entry permit (L21C) from the CFEC. Individuals who do not have CFEC permit, but are assisting in the operation of the fishery in any manner, must have a 2001 crew member license. All commercial vessels used in the fishery (including skiffs) are required to have a 2001 vessel license with the CFEC. Fishers are required to display the permanent vessel license plate (ADF&G number) on both sides of the hull, cabin, or mast in permanent symbols at least 12-inches high and with lines at least one-inch wide that contrast with the background.

Applications for vessel and CFEC permits are available from all offices of ADF&G or they can be obtained by writing the Commercial Fisheries Entry Commission, 8800 Glacier Hwy #109, Juneau, Alaska 99801-8079. **Fishers are reminded to apply for all licenses well in advance of the fishery.** Crew member licenses may be obtained from local vendors in most communities.

REQUIREMENTS OF OTHER AGENCIES

Prospective pound operators are advised to consider the requirements that other agencies may have to construct and operate pounds in the Craig/Klawock fishery. Pound operators are urged to contact the Alaska Department of Natural Resources (DNR) (907-465-3400), the U.S. Forest Service (907-826-3271), the National Marine Fisheries Service (NMFS) (907-747-6940), and the United States Coast Guard (907-228-0340) to determine other requirements or restrictions.

United States Coast Guard

Structures such as floating fish pens are subject to the requirements of the Code of Federal Regulations, Title 33, Part 64. This regulation requires an owner to apply for a Coast Guard permit and to install and maintain a light or other private aid to navigation if the Coast Guard determines it to be necessary to protect maritime navigation.

The proposed pens of the Craig/Klawock spawn-on-kelp pound fishery do not require permits for private aids to navigation at this time, provided the owners:

1. Place two signs on opposite corners of the structure. These signs will be worded "Danger, Fish Pens" (Figure 5).
2. Place a single, all-points white light on one corner of structures less than 400 square feet in size.

3. Place a single, all-points white light on every corner of structures larger than 400 square feet in size.
4. Anchor fish pens within the boundary area specified by this permit.

If all these conditions are not met, the permit holder must apply to the Coast Guard for an individual "Private Aids to Navigation Permit." If you have questions, call the Coast Guard Aids to Navigation office, at 463-2245.

PRIVATE LANDS

Some of the area in which pounds may be operated is adjacent to privately owned lands. Pound operators should contact the landowners if they intend to use any of that land above mean high tide. Private land owners include the Klawock/Heenya Corporation, Shaan-Seet Corporation, and Sealaska Corporation. Figure 3 shows the approximate areas of privately held lands in the Craig/Klawock area.

Table 1. Craig/Klawock stock size and bait harvests, 1987–2001.

YEAR	MILES OF SPAWN (year)	BIOMASS (TONS)	BAIT QUOTA (TONS)	BAIT HARVEST (TONS)
87-88 ^a	5.0 ('87)	3,080	2,200	2,014
88-89	27.0 ('88)	16,350	1,810	1,730
89-90	31.7 ('89)	19,800	3,150	3,221
90-91	30.0 ('90)	18,350	2,841	3,272
91-92	22.0 ('91)	17,800	2,281	2,295
92-93 ^b	23.0 ('92)	12,350	1,362	629
93-94	8.4 ('93)	7,996 (ASA)	760	636
94-95	8.0 ('94)	6,778 (ASA)	617	124
95-96	5.5 ('95)	6,262 (ASA)	558	34
96-97	9.9 ('96)	6,755 (ASA)	615	517
97-98 ^c	13.2 ('97)	7,018 (ASA)	455	254
98-99	11.0 ('98)	6,951 (ASA)	450	254
00-01	12.9 ('00)	9,091 (ASA)	635	150
01-02	16.7 ('01)	8,387 (ASA)	571	100

^a Reduced to 1,600 tons on the grounds.

^b First year bait quota was split between pound fishery 85%:15%.

^c Herring allocation changed to 60% for the winter food and bait fishery, 40% to the S-O-K fishery.

Table 2. Craig/Klawock herring roe-on-kelp fishery summaries, 1992–2001.

FISHERIES INFORMATION	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Herring quota (tons)	403	240	135	109	100	200 ^a	500 ^b	650 ^c	280 ^d	913 ^e
Product quota (tons)	32.3	19.2	10.8	8.7	8.0	8.0	40	52	22.4	N/A
Total harvest (tons)	25.7	5.7	16.5	25.4	37.25	23	22.4	36	0	27.2
Exvessel value	\$180,000	\$47,882	\$364,199	\$1,000,000	\$1,490,000	\$270,306	\$152,203	\$212,121	\$0	\$146,859
Aver. Price/pound	\$3.50	\$4.17	\$11.00	\$19.00	\$20.00	\$6.00	\$3.39	\$2.94	\$0	\$2.70
Aver. Income/landing	\$784.70	\$2,081.00	\$4,388.00	\$5,107	\$9,700	\$1,890	\$1,072	\$2,060	\$0	\$2,880
Number of applicants	531	389	257	241	195	218	170	161	164	N/A
Number of pounds in fishery	248	209	147	159	162	119	112	70	50	31
Number of landings	229	23	83	146	154	143	148	103	0	51
Herring allocation (tons)	1.6	1.15	1	0.7	0.6	0.7	4.46	N/A	N/A	N/A
Blade quota (tons)	8.0	6.4	3.75	2.9	2.67	2.6	13	9.1	7.4	N/A
Blade allocation	310	292	233	174	156	^f	^g	^h	ⁱ	^j
Total kelp harvest (tons)	7.8	3.7	3.0	3.0	2.6	3.2	3.47	2.9	2.0	3.2
Herring spawning dates	3/15 – 4/10	3/26 – 4/21	3/23-4/12	3/27-4/9	3/22-4/12	4/7-4/14	3/19-4/8	3/23-3/28	3/22-4/5	4/1-4/7
Miles of spawn	22.0 ('91)	23.0 ('92)	8.4 ('93)	8.0 ('94)	5.5 ('95)	9.9 ('96)	13.2 ('97)	12.5 ('98)	15.4 ('99)	12.9 ('00)
Stock biomass (tons)	17,800	12,350	7,996	6,778	6,262	6,755	7,018	6,951	6,013	9,591
Seining opened/closed	3/18 – 3/23	4/17 - 4/28	4/5-4/18	3/28-4/14	3/28-4/14	3/17-4/20	3/17-4/20	3/17-4/21	3/17-5/1	3/17-4/24

- ^a 100 tons added on to original pound GHJ from unharvested winter food and bait herring fishery in Section 3-B.
- ^b 200 tons added on to original pound GHJ from unharvested winter food and bait herring fishery in Section 3-B.
- ^c 350 tons added on to original pound GHJ from unharvested winter food and bait herring fishery in Section 3-B.
- ^d 30 tons added onto original pound GHJ from unharvested winter food and bait herring fishery in Section 3-B.
- ^e 485 tons added on to the original pound GHJ from the unharvested winter food and bait herring fishery in Section 3-B.
- ^f 100 blades for single-closed pound, 150 blades for multiple pound permit holder, and 300 blades for open pound permits.
- ^g 120 blades for a single closed pound, 180 blades for a multiple pound permit holder, 360 blades for single open pound, and 400 blades for a multiple permit open pound.
- ^h 155 blades for a single closed pound, 235 blades for a multiple pound permit holder, 470 blades for a single open pound, 520 blades for a multiple permit open pound.
- ⁱ 70 blades for a single closed pound, 210 for a multiple pound permit holder, 700 blades for a single open pound, 2,100 blades for a multiple permit open pound.
- ^j 200 blades — single closed pound, 600 blades — per permit holder multiple closed pound, 200 fronds or 2,000 blades — single open, 600 fronds or 6,000 blades for multiple permit open pound.

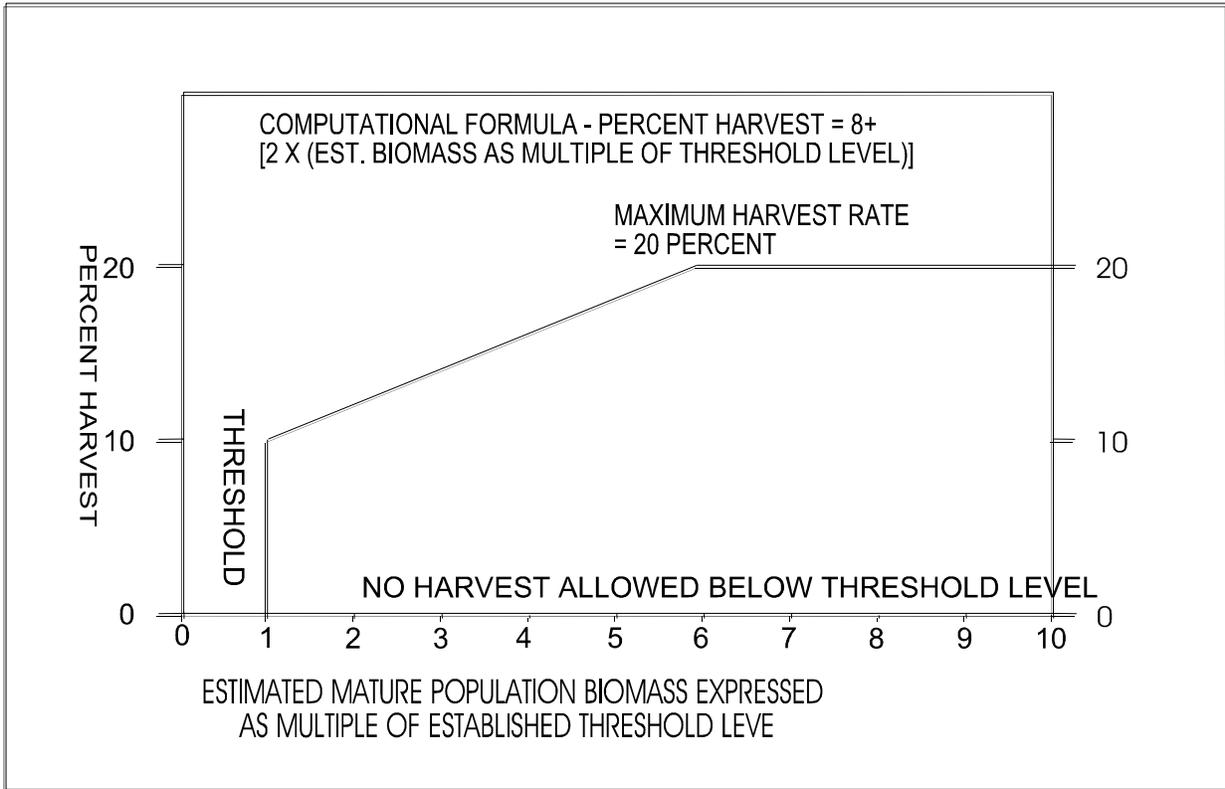


Figure 1. Generalized harvest strategy for Southeast Alaska herring stocks showing allowable percent annual harvest related to estimated biomass of mature stock expressed as a multiple of the established harvest threshold level.

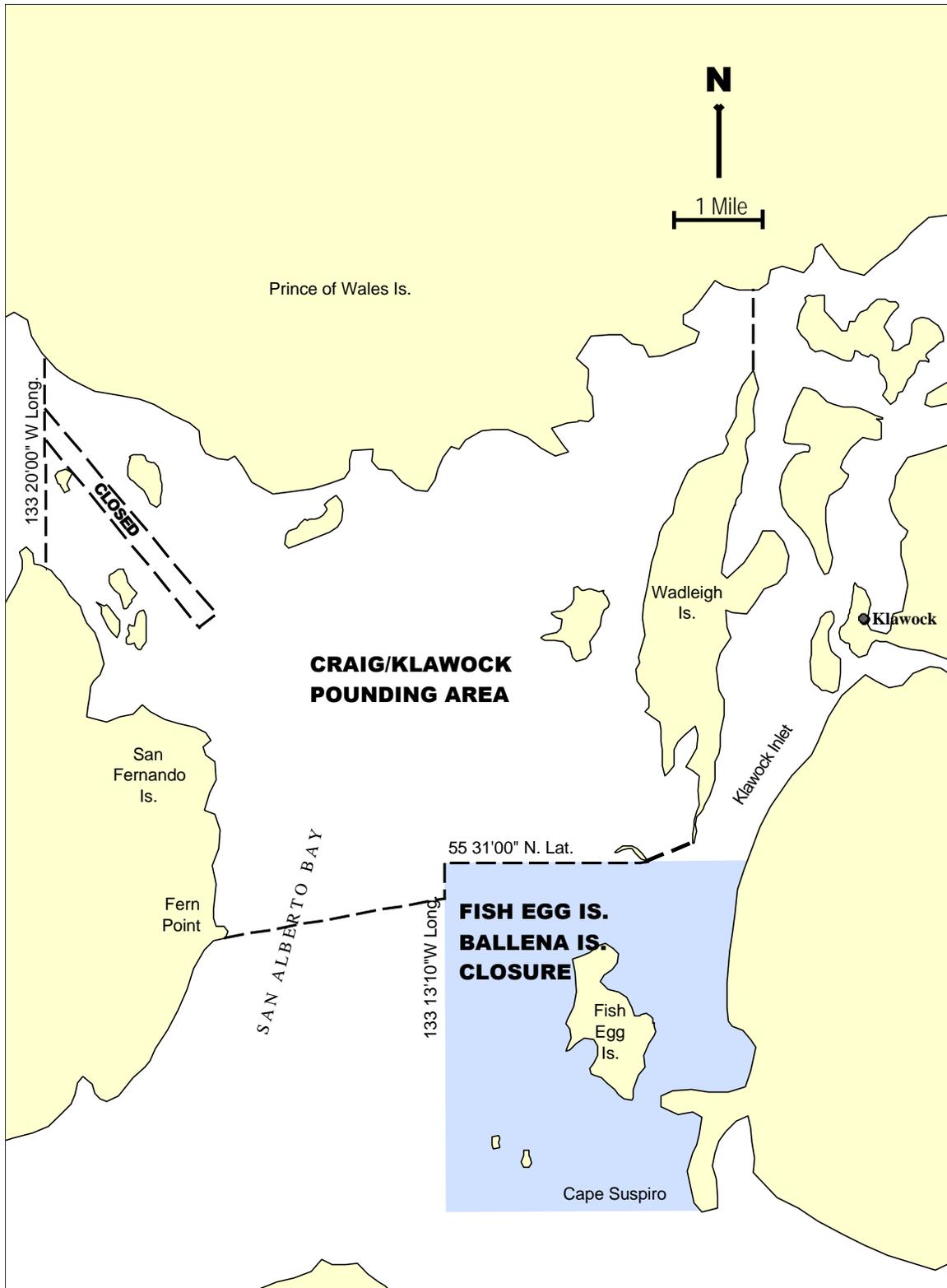


Figure 2. Open area for Craig/Klawock pound fishery.

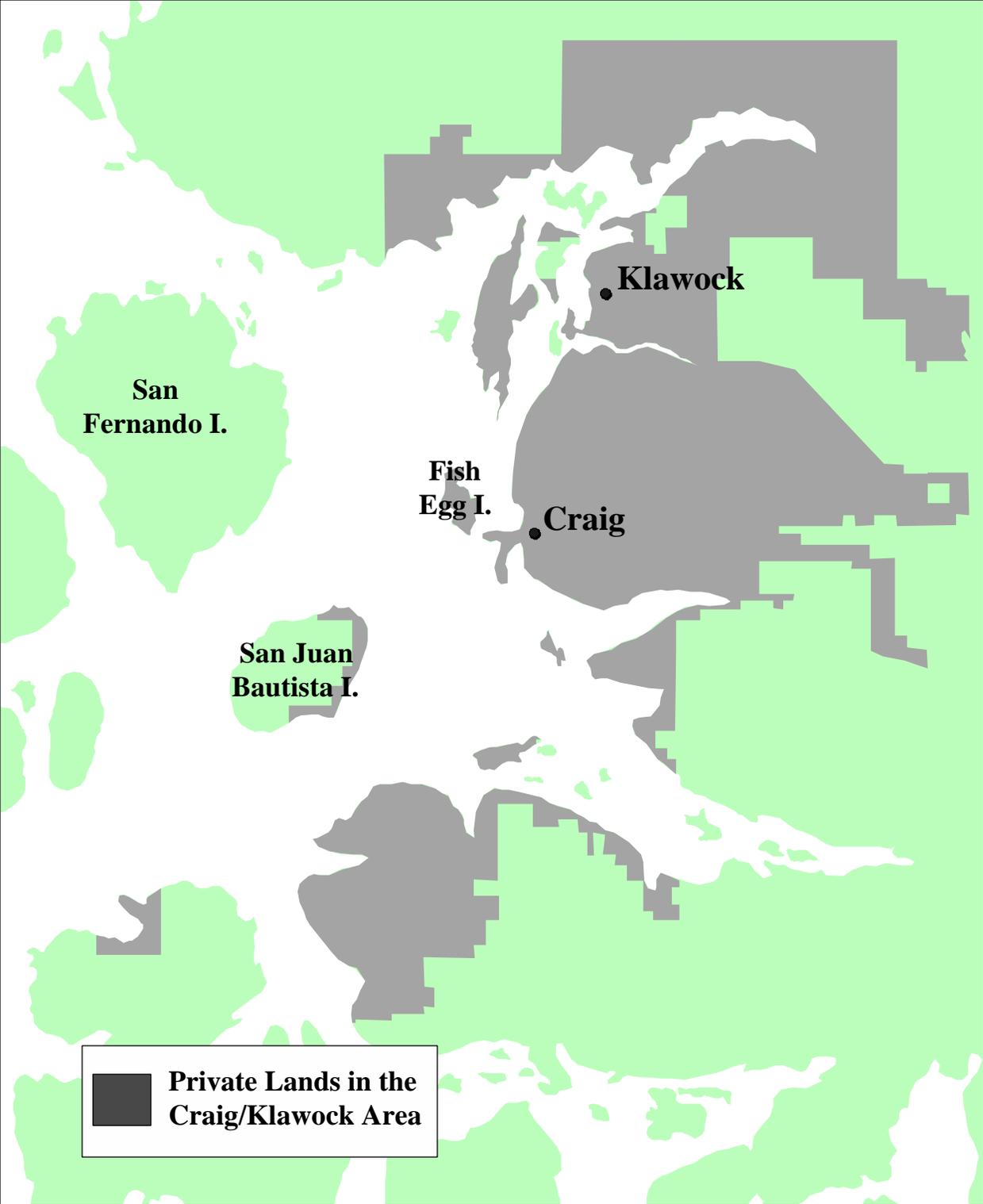
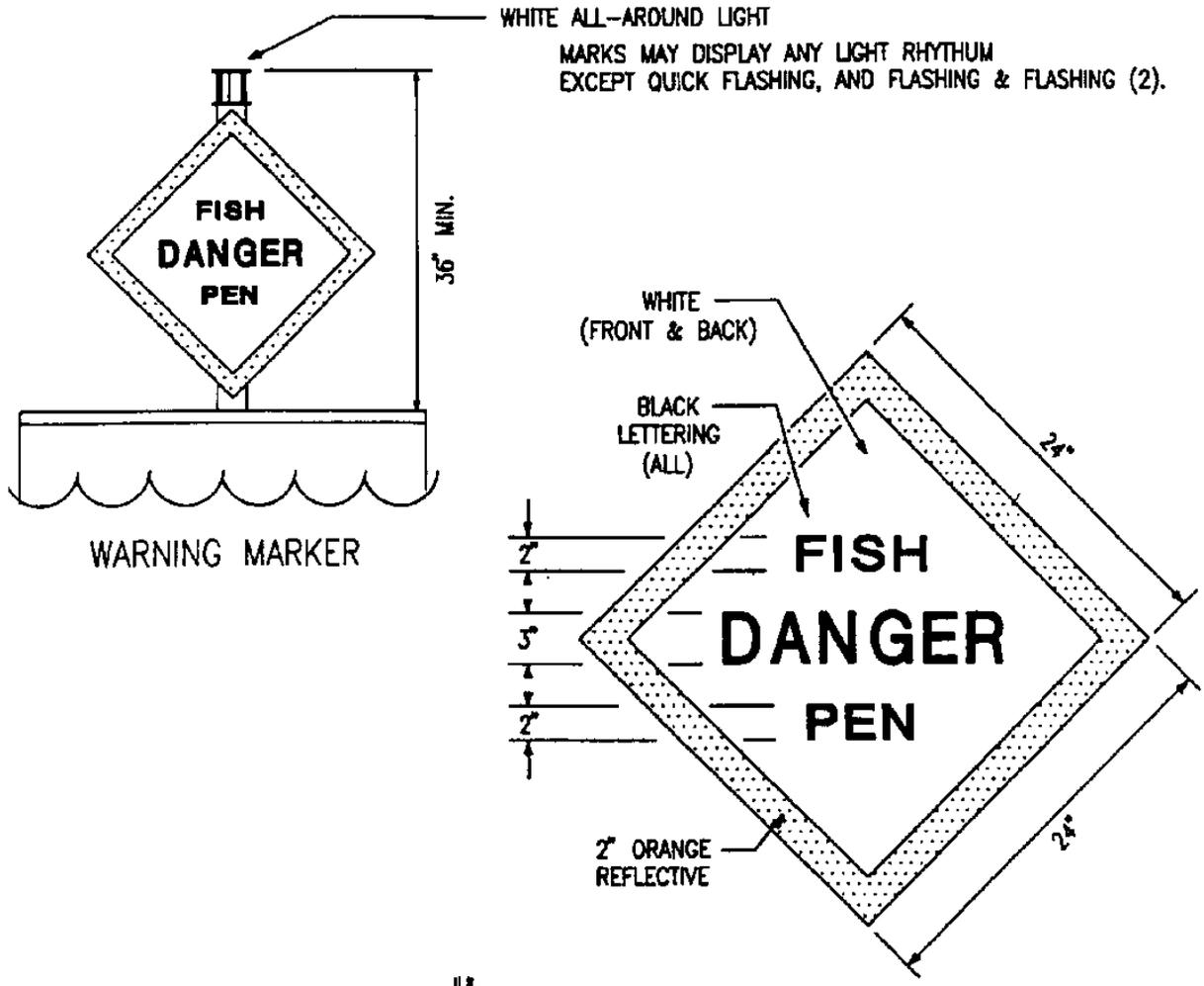
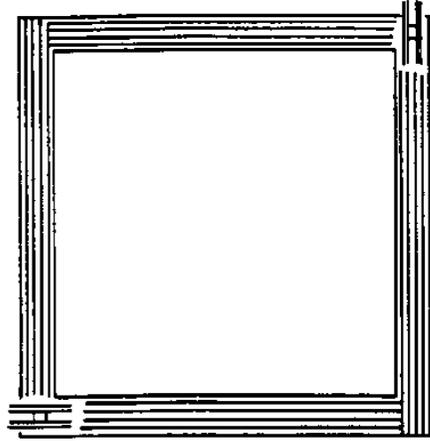


Figure 3. Private lands in the Craig/Klawock area.



WARNING MARKER



MARKING / LIGHTING LOCATIONS

ALL PENS REQUIRE A TWO-SIGN MARKER PLACED ON OPPOSITE CORNERS AS SHOWN.

ALL PENS LESS THAN 400 SQ. FT. REQUIRE AN ALL-AROUND WHITE LIGHT ON ONE CORNER MARKER.

PENS LARGER THAN 400 SQ. FT. ARE REQUIRED TO HAVE AN ALL-AROUND WHITE LIGHT ON EACH MARKER.

Figure 4. Coast Guard requirements for marking ponds.

IST OF MANAGEMENT CONTACTS

Following are Division of Commercial Fisheries contacts regarding this management plan:

Andy McGregor Region I Supervisor	P.O. Box 240020 Douglas, Alaska 99824 (907) 465-4250
Scott Kelley Region I Management Biologist	P.O. Box 240020 Douglas, Alaska 99824 (907) 465-4250
Craig Farrington Area Management Biologist	P.O. Box 240020 Douglas, Alaska 99824 (907) 465-4250
Kyle Hebert Herring Research Biologist	P.O. Box 667 Petersburg, Alaska 99833 (907) 772-3801
William Bergmann Area Management Biologist	P.O. Box 667 Petersburg, Alaska 99833 (907) 772-3801
Phil Doherty – Area Management Biologist Don House – Asst. Area Management Biologist Scott Walker – Asst. Area Management Biologist	2030 Sea Level Dr., Suite 205 Ketchikan, Alaska 99901 (907) 225-5195
Vacant	P.O. Box 200 Wrangell, Alaska 99929 (907) 874-3822
Bill Davidson – Area Management Biologist Dave Gordon – Asst. Area Management Biologist	304 Lake Street, Room 103 Sitka, Alaska 99835 (907) 747-6688

During the herring spawn-on-kelp pound fishery information may also be obtained from the Fish and Game Office in Craig, Alaska, located at Suite 302 Westwind Plaza, telephone number 1-907-826-2563.

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